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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,802	12/02/2003	Osamu Kobayashi	GENSP014	4125

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EXAMINER	
LEE, CHUN KUAN	
ART UNIT	PAPER NUMBER
2181	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/726,802	KOBAYASHI, OSAMU	
	Examiner	Art Unit	
	Chun-Kuan (Mike) Lee	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-7,21 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-7,21 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/03/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

RESPONSE TO ARGUMENTS

1. Applicant's arguments with respect to claims 3-7 and 21-22 have been considered but are moot in view of the new ground(s) of rejection. Claim rejection of claim 21 under 35 U.S.C. 112 first paragraph is withdrawn. Claim rejection of claims 3-7 and 22 under 35 U.S.C. 112 second paragraph is withdrawn. Currently, claims 1-2 and 8-20 are canceled and claims 3-7 and 21-22 are pending for examination.

I. INFORMATION CONCERNING OATH/DECLARATION

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63.**

II. INFORMATION CONCERNING DRAWINGS

Drawings

3. The applicant's drawings submitted are acceptable for examination purposes.

III. ACKNOWLEDGEMENT OF REFERENCES CITED BY APPLICANT

4. As required by **M.P.E.P. 609(C)**, the applicant's submissions of the Information Disclosure Statement dated January 03, 2007 is acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending.

As required by **M.P.E.P 609 C(2)**, a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant office action.

IV. DOUBLE PATENTING

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 21 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 7 and 13 of copending Application No. 10/726,350 in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The copending application (10/726,350) teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1, 7 and 13).

The copending application (10/726,350) does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the copending application (10/726,350). The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the copending application (10/726,350) not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the copending application (10/726,350) and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog

mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the copending application (10/726,350) and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the copending application (10/726,350), Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the copending application (10/726,350), Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

6. Claim 21 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 7-8 and 13-14 of copending Application No. 10/726,362 in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The copending application (10/726,362) teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1-2, 7-8 and 13-14).

The copending application (10/726,362) does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6,

l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the copending application (10/726,362). The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the copending application (10/726,362) not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the copending application (10/726,362) and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the copending application (10/726,362) and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the copending application (10/726,362), Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the copending application (10/726,362), Hulvey and Rogers for the benefit of providing a multi-display

system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

7. Claim 21 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 12 and 23 of copending Application No. 10/726,440 in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The copending application (10/726,440) teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1, 12 and 23).

The copending application (10/726,440) does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the copending application (10/726,440). The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the copending application (10/726,440) not only for the benefit of reducing the number lines in the

signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the copending application (10/726,440) and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the copending application (10/726,440) and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog

or digital into the copending application (10/726,440), Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the copending application (10/726,440), Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

8. Claim 21 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 8, 10, 15 and 17 of copending Application No. 10/726,441 in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The copending application (10/726,441) teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1, 3, 8, 10, 15 and 17).

The copending application (10/726,441) does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to

the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the copending application (10/726,441). The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal

cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the copending application (10/726,441) not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the copending application (10/726,441) and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the copending application (10/726,441) and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the copending application (10/726,441), Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the copending application (10/726,441), Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

9. Claim 21 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 21, 23 and 41 of copending Application No. 10/726,794 in view of in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The copending application (10/726,794) teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1, 3, 21, 23 and 41).

The copending application (10/726,794) does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the copending application (10/726,794). The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the copending application (10/726,794) not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the copending application (10/726,794) and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog

mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the copending application (10/726,794) and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the copending application (10/726,794), Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the copending application (10/726,794), Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

10. Claim 21 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 9 and 13-15 of U.S. Patent No. 7,088,741 in view of in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The U.S. Patent No. 7,088,741 teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1, 5, 9 and 13-15).

The U.S. Patent No. 7,088,741 does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6,

l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the U.S. Patent No. 7,088,741. The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the U.S. Patent No. 7,088,741 not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the U.S. Patent No. 7,088,741 and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the U.S. Patent No. 7,088,741 and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the U.S. Patent No. 7,088,741, Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the U.S. Patent No. 7,088,741, Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to

utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

11. Claim 21 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6, 9 and 27 of U.S. Patent No. 7,068,686 in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The U.S. Patent No. 7,068,686 teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (claims 1, 6, 9 and 27).

The U.S. Patent No. 7,068,686 does not teach the method comprising a signal cable that does not include a clock line; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g.

DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the U.S. Patent No. 7,068,686. The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the U.S. Patent No. 7,068,686 not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the U.S. Patent No. 7,068,686 and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the U.S. Patent No. 7,068,686 and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the U.S. Patent No. 7,068,686, Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the U.S. Patent No. 7,068,686, Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

12. Claim 21 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 19 of U.S. Patent No. 7,177,329 in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

The U.S. Patent No. 7,177,329 teaches the method of coupling a multimedia source device to a multimedia sink device comprising:

a bi-directional auxiliary channel arranged to transfer information between the multimedia source device and the multimedia sink device and a unidirectional main link arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device, wherein neither the main link nor the auxiliary channel include separate clock signal lines (claims 1 and 19).

The U.S. Patent No. 7,177,329 does not teach the method comprising a signal cable; coupling the multimedia sink device to the multimedia source device by way of the signal cable; and using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the

multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked; and

using a signal cable to connect a monitor (Fig. 5, ref. 502) to a source of video (Fig. 5, ref. 501) (Fig. 5), wherein the signal cable is a twisted pair of wire (col. 1, ll. 10-16).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling and twisted pair signal cable into the U.S. Patent No. 7,177,329. The resulting combination of the references further teaches the method comprising using the twisted pair signal cable (e.g. differential connection) to connect the monitor (e.g. multimedia sink device) to the source of video (e.g. multimedia source device); and wherein the twisted pair signal cable does not include the clock line as the data transferred over the twisted pair signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with the U.S. Patent No. 7,177,329 not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into the U.S. Patent No. 7,177,329 and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with the U.S. Patent No. 7,177,329 and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into the U.S. Patent No. 7,177,329, Hulvey and Rogers' method. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with the U.S. Patent No. 7,177,329, Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

This is a provisional obviousness-type double patenting rejection.

V. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kori (US Patent 6,963,968) in view of Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844) and Clark (US Patent: 5,949,437).

Kori teaches a method of coupling a multimedia source device (Fig. 1, ref. 10) to a multimedia sink device (Fig. 1, ref. 20), comprising:

providing a signal cable (Fig. 1, ref. 30) comprising

a bi-directional auxiliary channel (Fig. 1, ref. 310) arranged to transfer information between the multimedia source device and the multimedia sink device (e.g. wherein information such as the control data are transferred utilizing the bi-directional auxiliary channel) (col. 2, ll. 1-22) and

a unidirectional main link (Fig. 1, ref. 301-303) arranged to transport multimedia data packets from the multimedia source device to the multimedia sink device (e.g. wherein data packets such as video or audio is transferred utilizing the unidirectional main link) (col. 1, ll. 44-51);

coupling the multimedia sink device (Fig. 1, ref. 20) to the multimedia source device (Fig. 1, ref. 10) by way of the signal cable (Fig. 1, ref. 30) (col. 1, l. 44 to col. 2, l. 22); and

wherein the signal cable utilize differential interconnection (e.g. Transition Minimized Differential Signals (TDMS) link) for transferring analog video (e.g. red, green and blue video signal) (col. 1, ll. 29-37).

Kori does not expressly teach the method comprising:

wherein the signal cable does not include a clock line; and

using an enhanced analog mode having differential analog video with embedded alignment signal and bi-directional sideband when either one or both the multimedia source device or the multimedia sink device are determined to be analog in nature.

Hulvey teaches a transferring of a signal using Manchester encoding (col. 2, ll. 22-34 and col. 5, ll. 10-42), by encoding a clock (e.g. DCLK) onto to the signal (e.g. DATA) as the encoded signal (e.g. Manchester Encoded Data) is transferred by a transmitter (Fig. 1-2 and col. 3, l. 9 to col. 4, l. 38), and a receiver recovers the signal by recovering the clock (e.g. DCLK') for decoding the encoded signal (col. 5, l. 64 to col. 6, l. 34), therefore it would be obvious that the signal is transferred without a separate clock line as the transferred signal is self-clocked.

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Hulvey's self-clocked signaling into Kori's signaling cable. The resulting combination of the references further teaches the method comprising wherein the signal cable does not include the clock line as the data transferred over the signal cable are self-clocked, therefore the analog video would have the embedded clock signal (i.e. alignment signal).

Therefore, it would have been obvious to combine Hulvey with Kori not only for the benefit of reducing the number lines in the signal cable, but also providing a more effective data transitions and more accurate clock recovery at the receiver (Hulvey, col.5, ll. 27-32).

Rogers teaches a data transferring apparatus and method comprising transferring data over a pair of twisted pair wire utilizing a sideband, wherein the data is bidirectional transferred (col. 1, ll. 10-16 and col. 2, ll. 21-38).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Rogers's transferring of bidirectional data over the sideband into Kori and Hulvey's signal cable. The resulting combination of the references further teaches the method comprising utilizing the signal cable having differential interconnection for operating at enhanced analog mode by transferring analog video with encoded alignment signal (e.g. clock signal), wherein the enhanced analog mode have bidirectional sideband.

Therefore, it would have been obvious to combine Rogers with Kori and Hulvey for the benefit of enabling transferring additional data without interfering with the transferring of normal data (Rogers, col. 2, ll. 26-29).

Clark teaches a system and a method for connecting a video source and a video display, comprising automatic determining whether the monitor (i.e. multimedia sink device) is analog or digital (Fig. 6 and col. 5, l. 49 to col. 6, l. 14).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Clark's determination of the destination unit to be analog or digital into Kori, Hulvey and Rogers' control unit. The resulting combination of the references further teaches the method comprising automatic detection that the monitor (i.e. multimedia sink device) that is connected is analog.

Therefore, it would have been obvious to combine Clark with Kori, Hulvey and Rogers for the benefit of providing a multi-display system that enable the connection of analog display as it is more desirable for certain applications to utilize multiple analog displays, such as CAD, video editing and financial applications (Clark, col. 2, ll. 33-35).

14. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kori (US Patent 6,963,968), Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844), and Clark (US Patent: 5,949,437) as applied to claim 21, and further in view of Kim (US Patent: 6,577,303).

Kori, Hulvey, Rogers and Clark teach all the limitations of claim 21 as discussed above, wherein Kori and Clark teach the method comprising the utilization of the bi-directional auxiliary channel to transfer control data, wherein use of the control data such as the determination of the multimedia sink device to be digital or analog would be retrieved and transferred (Kori, col. 2, ll. 1-22 and Clark, col. 5, l. 49 to col. 6 l. 14).

Kori, Hulvey, Rogers and Clark do not expressly teach the method comprising using multimedia source device identification data retrieved from the multimedia source device to determine the analog nature of the multimedia source device.

Kim teaches a system and a method comprising a controller (Fig. 1, ref. 8) for making an automatic determination of whether the video source is an analog video source or a digital video source (col. 4, ll. 43-48).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Kim's determination of the video source to be analog or

digital video source into Kori, Hulvey, Rogers and Clark's control unit. The resulting combination of the references further teaches the system and the method comprising utilization of the bi-directional auxiliary channel to transfer control data, wherein the use of the control data such as the determination of the multimedia source device to be digital or analog would be retrieved and transferred.

Therefore, it would have been obvious to combine Kim with Kori, Hulvey, Rogers and Clark for the benefit of proper detection if the video source is digital or analog regardless of the type of interconnection utilized (Kim, col. 4, ll. 34-43).

15. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori (US Patent 6,963,968), Hulvey (US Patent 5,940,137), Rogers et al. (US Patent 5,786,844), Clark (US Patent: 5,949,437), and Kim (US Patent: 6,577,303) as applied to claim 22, and further in view of the "Digital Visual Interface (DVI), Revision 1.0".

16. As per claim 3, Kori, Hulvey, Rogers, Clark and Kim teach all the limitations of claim 22 as discussed above, wherein Kim further teaches that the system and the method wherein the interconnection conforms to the Digital Visual Interface (DVI) standard (Kim, col. 4, ll. 1-12).

Kori, Hulvey, Rogers, Clark and Kim do not expressly teach the method comprising:

receiving video data from the multimedia source device;

packetizing the video data to form a packetized video data stream formed of a number of video data packets;

passing the video data packets by way of unidirectional main link from the multimedia source device to the multimedia sink device;

depacketizing the video data packets at the multimedia sink device; and

generating a displayable image based upon the depacketized video data.

"Digital Visual Interface (DVI), Revision 1.0" teaches that the system and the method comprising that the DVI standard supports the Extended Display Identification Data (EDID) specification, wherein both DVI compliant systems and monitors must support the EDID data structure, as the data to be transferred must be packetized in accordance to the defined data structure before transferring and depacktized when the data is received ("Digital Visual Interface (DVI), Revision 1.0", Section 1.3.2 on page 8).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Digital Visual Interface (DVI), Revision 1.0's packetizing and depacktizing of data into Kori, Hulvey, Rogers, Clark and Kim's data transferring. The resulting combination of the references further teaches the method comprising:

receiving data from the multimedia source device (e.g. graphic controller) (Fig. 2-1 in page 10);

packetizing the video data to form a packetized video data stream formed of a number of video data packets ("Digital Visual Interface (DVI), Revision 1.0", Section 1.3.2 on page 8);

passing the video data packets by way of unidirectional main link from the multimedia source device (T.M.D.S. transmitter) to the multimedia sink device (T.M.D.S. receiver) (Fig. 2-1 in page 10), as data is transferred over one of the six data channels

depacketizing the video data packets at the multimedia sink device (T.M.D.S. receiver) (Fig. 2-1 in page 10); and

generating a displayable image based upon the depacketized video data (Fig. 2-1 in page 10).

Therefore, it would have been obvious to combine "Digital Visual Interface (DVI), Revision 1.0" with Kori, Hulvey, Rogers, Clark and Kim because Kori, Hulvey, Rogers, Clark and Kim's system conforms to the DVI standard, therefore the T.M.D.S. differential pair interconnection enables proper communicate of video signals over a T.M.D.S. differential pair connection having the plurality of communication channels.

17. As per claim 4, Kori, Hulvey, Rogers, Clark, Kim and "Digital Visual Interface (DVI), Revision 1.0" teach all the limitations of claim 3 as discussed above, where "Digital Visual Interface (DVI), Revision 1.0" further teaches that the method comprising:

encoding video data from the multimedia source device from an 8-bit format to a 10-bit format ("Digital Visual Interface (DVI), Revision 1.0", Fig. 2-1 and Section 2.1 on page 10 and Section 3.1.4 on page 25);

transmitting the encoded video data from the multimedia source device (T.M.D.S. transmitter) to the multimedia sink device (T.M.D.S. receiver) ("Digital Visual Interface (DVI), Revision 1.0", Fig. 2-1 and Section 2.1 on page 10);

converting (converting by decoding) the encoded video data from the 10-bit format to the 8-bit format at the multimedia sink device ("Digital Visual Interface (DVI), Revision 1.0", Fig. 3-6 and Section 3.3 on pages 30-31); and

providing the data to the multimedia sink device (display control) in the 8-bit format ("Digital Visual Interface (DVI), Revision 1.0", Fig. 2-1 and Section 2.1 on page 10).

18. As per claim 5, Kori, Hulvey, Rogers, Clark, Kim and "Digital Visual Interface (DVI), Revision 1.0" teach all the limitations of claim 4 as discussed above, where Kori further teaches that the method comprising wherein the unidirectional main link has an associated main link data rate and wherein the auxiliary link has an auxiliary link data rate (Kori, col. 2, ll. 1-22), wherein the unidirectional main link operates at the high-speed data rate and the auxiliary link operates at the low-speed data rate.

19. As per claim 6, Kori, Hulvey, Rogers, Clark, Kim and "Digital Visual Interface (DVI), Revision 1.0" teach all the limitations of claim 5 as discussed above, where "Digital Visual Interface (DVI), Revision 1.0" further teaches that the method comprising wherein the input stream (source video data) is pixel data provided at a native clock rate (CLK frequency), wherein the pixel data is transmitted at the link data rate (T.M.D.S frequency reference) that is different than the native clock rate ("Digital Visual Interface (DVI), Revision 1.0", Fig. 3-1, page 24).

20. As per claim 7, Kori, Hulvey, Rogers, Clark, Kim and "Digital Visual Interface (DVI), Revision 1.0" teach all the limitations of claim 6 as discussed above, where Hulvey and "Digital Visual Interface (DVI), Revision 1.0" further teaches the method comprising:

wherein the main link data is encoded using 8B/10B encoding (converting the 8-bit format to the 10-bit format) ("Digital Visual Interface (DVI), Revision 1.0", Fig. 3-1, Section 3.1.1 and Section 3.1.4 on pages 24-25); and

wherein the secondary link is encoded using Manchester II encoding (Hulvey, col. 2, ll. 22-34 and col. 5, ll. 10-42).

VI. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. 707.07(i)**:

a(1) CLAIMS REJECTED IN THE APPLICATION

Per the instant office action, claims 3-7 and 21-22 have received a first action on the merits and are subject of a first action non-final.

b. DIRECTION OF FUTURE CORRESPONDENCES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

IMPORTANT NOTE

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 02, 2007

Chun-Kuan (Mike) Lee
Examiner
Art Unit 2181

DONALD SPARKS
SUPERVISORY PATENT EXAMINER